IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No.:

RTSP-0204

Inventors:

Monia and Cowsert

Serial No.:

10/009,624

Filing Date:

Group Art Unit:

December 11, 2001

Examiner:

Not Yet Assigned

Not Yet Assigned

Title:

Antisense Inhibition of JUN N-Terminal

Kinase Kinase-2 Expression

I, Kathleen A. Tyrrell, Registration No. 38,350, certify that this correspondence is being depositing with the U.S. Postal Service as First Class mail in an envelope addressed to the Assistant Commissioner for Patents and Trademarks, Washington, D.C. 20231.

On this date: April 9 ,200

(atkleen A. Tyrrelf, Registration No. 38,350

Assistant Commissioner for Patents Washington, DC 20231

Sir:

INFORMATION DISCLOSURE STATEMENT

Pursuant to 37 C.F.R. §1.56 and in accordance with 37 C.F.R. §\$1.97-1.98, information relating to the above-identified application is hereby disclosed. Inclusion of information in this statement is not to be construed as an admission that this information is material as that term is defined in 37 C.F.R. §1.56(b).

(XX) In accordance with \$1.97(b), since this Information Disclosure Statement is being filed either within three months of the filing date of the above-identified application, within three months of the date of entry into the national stage of the above identified application as set forth in \$1.491; or before the mailing date of a first Office Action on the merits of the above-identified application, no additional fee is required.

- () In accordance with \$1.97(c), this Information Disclosure Statement is being filed after the period set forth in \$1.97(b) above but before the mailing date of either a Final Action under \$1.113 or a Notice of Allowance under \$1.311, therefore:
 - () Certification in Accordance with \$1.97(e) is set forth below; or
 - () The fee of \$180.00 as set forth in \$1.17(p) is attached.
- () In accordance with \$1.97(d), this Information Disclosure Statement is being filed after the mailing date of either a Final Action under \$1.113 or a Notice of Allowance under \$1.311 but before the payment of the Issue Fee, therefore included are: Certification in Accordance with \$1.97(e); Petition Requesting Consideration of the Information Disclosure Statement; and the fee of \$130.00 as set forth in \$1.17(i)(1).
- () Copies of each of the references listed on the attached Form PTO-1449 (modified) are enclosed herewith.
- (XX) In accordance with \$1.98(d), copies of some or all of the references listed on the attached Form PTO-1449 (modified) are not enclosed herewith because they were previously

submitted to the U.S. Patent and Trademark Office in prior application Serial No. 99/344,001, filed June 24, 1999, for which a claim for priority under 35 U.S.C. \$120 has been made in the instant application or were previously submitted to the U.S. Patent and Trademark Office as the PCT Receiving Office and are referenced in the International Search Report (AL and AM).

Please charge any deficiency or credit any overpayment to Deposit Account No. 50-1619. This form is submitted in duplicate.

() The relevance of the listed references in a foreign language is as stated in the specification at pages @@.

(XX) All listed references are in the English language.

Respectfully submitted,

Mathua H. Turnel

Kathleen A. Tyrrell Registration No. 38,350

Date: April 9, 2002

Licata & Tyrrell P.C. 66 E. Main Street Marlton, New Jersey 08053

(856) 810-1515

Form PTO-1449 Modified			Docket No.	Serial No.				
101	M 210-		RTSP-0204	10/009,624				
Ci	ted by	s and Publications Application neets if necessary)	Applicant Brett P. Monia et al.					
(Use seve	eral s	deets it necessary	Filing Date	Group				
U.S. Departm Trademark Of	ent of	Commerce Patent and	December 11, 2001	Not Yet Assigned				
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)								
	Butterfield et al., Stress- and cell type-dependent regulation of transfected c-Jun N- terminal kinase and mitogen-activated protein kinase kinase isoforms, Biochem. J., 1999, 338:681-686							
	AB	Cuenda et al., Differential activation of stress- activated protein kinase kinases SKK4/MKK7 and SKK1/MKK4 by the mixed-lineage kinase-2 and mitogen- activated protein kinase kinase (MKK) kinase-1, Picchem J. 1998. 333:11-15						
	AC	Foltz et al., Human mitogen-activated protein kinase kinase 7 (MKK7) is a highly conserved c-Jun N-terminal kinase/stress-activated protein kinase (JNK/SAPK) activated by environmental stresses and physiological trial T pial Chem 1998 273:9344-9351						
	AD	Hirai et al., Differential activation of two JNK activators, MKK7 and SEK1, by MKN28- derived nonreceptor serine/threonine kinase/mixed lineage kinase 2 J Biol Chem. 1998, 273:7406-7412						
	AE	Lu et al., Identification of c-Jun NH2-terminal protein kinase (JNK)-activating kinase 2 as an activator of JNK but not p38, J. Biol. Chem., 1997, 272:24751-24754						
	AF	Matsuda et al., T lymphocyte activation signals for interleukin-2 production involve activation of MKK6-p38 and MKK7-SAPK/JKK signaling pathways sensitive to graceproin A. J. Biol. Chem., 1998, 273:12378-12382						
	AG	Tournier et al., The MKK/ gene encodes a group of C- Jun NH2-terminal kinase kinases, Mol. Cell. Biol., 1999 19:1559-1581						
	AH Toyoshima et al., Fas induces cytoplasmic apoptotic responses and activation of the MKK7- JNK/SAPK and MKK6-p38 pathways independent of CPP32-like proteases, J. Cell. Biol., 1997, 139:1005-1015							
EXAMINER			DATE CONSIDERED					

				Sheet 02 of 0:						
For	m PTC	0-1449 Modified	Docket No. RTSP-0204	Serial No. 10/009,624						
С	ited	ts and Publications by Applicant sheets if necessary)	Applicant Brett P. Monia et al.							
U.S. Department of Commerce			Filing Date December 11, 2001	Group Not Yet Assigned						
OTHER DOO	CUMEN	TS (Including Author,	Title, Date, Perti	nent Pages, Etc.)						
	AI	human JNKK2, a novel	ar cloning and characterization of 1 Jun NH2-terminal kinase-specific Biol. 1977 17:7407-7416							
	AJ	Yamauchi et al., "Differential regulation of mitogen-activated protein kinase kinase 4 (MKK4) and 7 (MKK7) by signaling from G protein beta gamma subunit in human embryonal kidney 293 cells", J. Biol. Chem. 1999 274:1957-								
	AK	Yang et al., "Molecular cloning and characterization of a human protein kinase that specifically activates c-Jun N-terminal kinase", Gene 1998 212:95-102								
	AL	James W., "Towards gene-inhibition therapy:a review of progress and prospects in the field of antiviral antisense nucleic acids and ribozymes", Antiviral Chemistry & Chemotl. 1991 2(4):191-214								
	АМ	Milner et al., "Selecting effective antisense reagents on combinatorial oligonucleotide arrays", Nature Biotechnology 1997 15:537-541								
EXAMINER			DATE CONSIDERED							

Form PTO-1449 Modified						erial No.			
				RTSP_0204 10/009,624					
List of Patents and Publications			Appli	cant P. Monia et	1				
Cite (Use severa	d by	Applicati	on		P. Monia et	. aı.			
(Use severa	u sr	meets ii ne	cessary)	Tri line	- Data	Group			
U.S. Depart Patent and	ment	or commer	ce		Filing Date Group December 11 2001 Not Yet Assigned				
Patent and	ILac	TEMATA OILI	.ce	Decem	er II, 2001	NOL	IEL AS	signed	
			U.S. PA	TENT DO	CUMENTS				
Examiner's	T	Document	Date	Name			Class	Subclass	
Initial		No.							
	AA							ļ	
	AB								
	AC							- 1	
	AD							_	
	ΑE								
	AF						L		
	AG								
	AH								
	AI								
	AJ								
	AK								
	AL								
	AM								
	AN						<u> </u>		
		1	FOREIGN E	ATENT I	OCUMENTS				
Examiner's		Document	Date		Country		Translation		
Initial		No.					YES	NO	
	AO	WO 99/02547	01/21/19	999	PCT		х		
	AP	WO 98/54203	12/03/19	998	PCT		Х		
	AO								
	AR								
	AS								
	AT								
	AU				†				
	AV		i			\neg			
	AW		· · · · · · · · · · · · · · · · · · ·						
	AX								
				DAME:	ONGTRERED				
EXAMINER				DATE	ONSIDERED				